

Application No. 10/688,753  
RCE to FOA of 04/10/2006

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Amendments to the Claims

**This listing of claims will replace all prior versions, and listings, of the claims:**

1. (Currently Amended) A method for detecting a data cartridge in a cartridge engaging assembly, comprising:
  - emitting a signal from a signal emitter on the cartridge engaging assembly into a chamber formed within the cartridge engaging assembly;
  - detecting at least a portion of said emitted signal when said emitted signal is reflected from the data cartridge; and
  - generating output to indicate whether said data cartridge is present in said cartridge engaging assembly based on said emitted-detected signal that is reflected from the data cartridge; and
  - identifying a type of said data cartridge present in said cartridge engaging assembly based on said emitted signal that is reflected from the data cartridge.
2. (Original) The method of claim 1, wherein emitting the signal is at least during start-up.
3. (Original) The method of claim 1, wherein emitting the signal is at least during power-up of the cartridge-engaging assembly.
4. (Original) The method of claim 1, further comprising focusing said signal for detection.
5. (Currently Amended) The method of claim 1, further comprising deciphering a color of said data cartridge based on said emitted-detected signal that is reflected from the data cartridge.
6. (Currently Amended) A data cartridge detection system, comprising:
  - a cartridge engaging assembly for receiving a data cartridge therein;

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a signal emitter mounted to said cartridge engaging assembly, said signal emitter producing a signal that is reflected by the presence of the data cartridge within said cartridge engaging assembly; and

a signal detector operatively associated with said cartridge engaging assembly, said signal detector being responsive to the reflected signal for (1) indicating that the data cartridge is present in said cartridge engaging assembly and (2) identifying a type of the data cartridge present in said cartridge engaging assembly based on a surface characteristic of the data cartridge.

7. (Currently Amended) A data cartridge detection system, comprising:  
means for receiving a data cartridge therein;  
means for emitting a signal positioned on said means for receiving; and  
means for detecting said signal when said signal is reflected from the data cartridge, said means for detecting mounted to said means for receiving, wherein said means for detecting generates output to (1) indicate whether said data cartridge is present in said means for receiving based on said detected signal and (2) interpret a bar code on said data cartridge.

8. (Original) The system of claim 7, wherein said means for emitting comprises a light source.

9. (Original) The system of claim 7, wherein said means for detecting comprises a light detector.

10. (Currently Amended) A method comprising:  
detecting a signal reflected from a data cartridge in a picker assembly; ~~and~~  
identifying a type of the data cartridge based on the signal reflected from the data cartridge; and  
moving the picker assembly after a loading operation if the detected signal indicates the data cartridge is engaged in the picker assembly.

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11. (Previously Presented) The method of claim 10, further comprising moving the picker assembly after an unloading operation if the detected signal indicates the data cartridge is disengaged from the picker assembly.
12. (Original) The method of claim 10, further comprising determining a color of the data cartridge.
13. (Currently Amended) The method of claim 10, further comprising detecting a surface characteristic of the data cartridge based on the signal reflected from~~identifying a type of~~ the data cartridge.
14. (Original) The method of claim 10, further comprising identifying a type of the data cartridge based on a color of the data cartridge.
15. (Currently Amended) A media storage system comprising:  
a signal detector responsive to a signal emitted into a picker assembly, said signal detector indicating during a loading operation that a data cartridge is engaged in said picker assembly in response to detecting a reflected signal from the data cartridge, wherein said picker assembly is movable between different locations in the media storage system; and  
a processor for identifying a type of the data cartridge based on the reflected signal.
16. (Previously Presented) The media storage system of claim 15, wherein said signal detector indicates during an unloading operation that the data cartridge is disengaged from said picker assembly.
17. (Previously Presented) The media storage system of claim 15, further comprising a processor determining when the data cartridge is engaged in said picker assembly.

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18. (Previously Presented) The media storage system of claim 15, further comprising a color-deciphering component determining a color of the data cartridge in said picker assembly.

19. (Currently Amended) The media storage system of claim 15, wherein the processor interprets a bar code label on the data cartridge ~~further comprising a processor identifying a type of the data cartridge based on the reflected signal.~~

20. (Currently Amended) The media storage system of claim 15, wherein the processor identifies ~~further comprising a processor identifying~~ a type of the data cartridge based on a color of the data cartridge.

21. (Previously Presented) The method of claim 1, further comprising moving the cartridge engaging assembly between first and second positions in response to the generated output indicating that the data cartridge is present in the cartridge engaging assembly.

22. (Previously Presented) The data cartridge detection system of claim 6, wherein the cartridge engaging assembly is movable between different locations within a media storage system in response to the reflected signal.

23. (Previously Presented) The data cartridge detection system of claim 6, further comprising a computer board on the cartridge engaging assembly, the signal emitter mounted on the computer board.

24. (Previously Presented) The data cartridge detection system of claim 6, wherein the signal detector is adapted to detect a color of the data cartridge.

25. (Canceled)